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| EXAMINER |
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YE, LIN

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| ART UNIT | PAPER NUMBER |
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2615

DATE MAILED: 02/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/080,589

Applicant(s)

YONEDA, TADAAKI

Examiner

Lin Ye

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Ohsawa U.S. Patent 6,477,332.

Referring to claim 1, the Ohsawa reference discloses in Figures 1, 3 and 11, an electronic still camera (an CCD or CMOS image sensor 51 is provided for obtaining electronic image information on the image of an object of shooting, see Col. 5, lines 1-4, and Col. 1, lines 57-58), comprising: a memory (a nonvolatile memory 53 as shown in Figure 3; and noted that Figure 3 is a block diagram showing by way of example of arrangement of electric circuits of the camera, see Col. 4, lines 12-14 and Col. 5, lines 8-12) to store an image data set of a captured image and a photographing data set including a date-and-time of either capturing said image or storing said image data set (e.g., photo-taking information data including a

Art Unit: 2615

photo-taking year, month, day, hour and minute, see Col. 11, lines 17-18 and Figure 5), said image data set corresponding to said photographing data set in said memory (See Col. 7, lines 45-47, Col. 8, lines 33-42 and lines 59-60); a detector (see **Figure 11**, step 181 executed by the control circuit 41) to detect a residual storing capacity of said memory (See Col. 11, lines 12-15); and an eraser to remove an unnecessary image data set (oldest image data set) stored in said memory (53); wherein, when a plurality of image data sets are stored in said memory and said residual storing capacity of said memory, detected by said detector, decreases at a level lower than a predetermined value (e.g., no sufficient vacant capacity for storing image data), said unnecessary image data set (oldest image data set) is selected out of said plurality of image data sets, based on dates-and-times included in photographing data sets each of which corresponds to each of said plurality of image data sets, so that said eraser removes said unnecessary image data set from said memory (e.g. at step 183, image data corresponding to the oldest photo-taking information data search out is erased from memory. See Col. 11, lines 19-24).

Referring to claim 2, the Ohsawa reference discloses wherein said unnecessary image data set (oldest image data set), to be removed by said eraser, corresponds to one of said photographing data sets (photo-taking information data sets), which includes a oldest date-and-time of either capturing said image or storing said image data set (e.g. at step 183, image data corresponding to the oldest photo-taking information data search out is erased from memory; and at step 184, the oldest photo-taking information is erased from the memory 53 too. See Col. 11, lines 19-24).

Art Unit: 2615

Referring to claim 5, the Ohsawa reference discloses an imager (an CCD or CMOS image sensor 51 is provided for obtaining electronic image information on the image of an object of shooting, see Col. 5, lines 1-4, and Col. 1, lines 57-58) that converts said image including a subject to electronic signals, so as to generate said image data set (See Col. 7, lines 45-47, Col. 8, lines 33-42 and lines 59-60).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohsawa U.S. Patent 6,477,332 in view of Kahn et al. U.S. Patent 2001/0050875.

Referring to claim 3, the Ohsawa reference discloses all subject matter as discussed with respect to claims 1-2, except that the Ohsawa reference does not explicitly show a counter to count a number of readout times of said image data set stored in said memory; and the unnecessary image data removed corresponding to said number of readout (recalling) times of which, counted by said counter, is relatively small.

The Kahn reference teaches in Figure 3, an electronic still camera (digital camera 10, see page 7 [0096]) comprising a counter to count a number of readout times (a number of readout times or frequency for recalling an image data from the memory by the user) of said

image data set stored in said memory (e.g., a processor as the counter inherently to count or know a number of readout times for recalling a particular image data from the memory by user, in order to decrease or increase the priority rating for the particular image data, see page 8, [0118]). If the image data having low priority (the image is not viewed or recalled frequently) is held within the device memory, the processor may determine that it is acceptable to delete it (See page 8, [0114]). The Kahn reference is evidence that one of ordinary skill in the art at the time to see more advantages the camera has a counter to count a number of times recalling an image data from the memory for increasing or decreasing the priority rating of the image so that allow the camera to automatically free device memory by the best strategy (see page 8, [0113]). For that reason, it would have been obvious to one of ordinary skill in the art to modify the camera system of Ohsawa ('332) by providing a counter to count a number of readout times of said image data set stored in said memory; and the unnecessary image data removed corresponding to said number of readout times of which, counted by said counter, is relatively small as taught by Kahn ('875).

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohsawa U.S. Patent 6,477,332 in view of Inoue et al. U.S. Patent 6,226,449.

Referring to claim 4, the Ohsawa reference discloses all subject matter as discussed with respected to claim 1, except that the Ohsawa reference dose not explicitly show a photographer can set a mode for prohibiting an erasing action of said eraser in advance.

The Inoue reference teaches in Figures 7 and 9, a digital camera can record a still image, moving image or any multimedia data; and photographer can set a mode (lock mode 904 as

Art Unit: 2615

showing Figure 9, see Col. 12, lines 32-33), i.e., a mark 705 for protecting data from being erased as shown in Figure 7 (See Col. 7, lines 62-63). The Inoue reference is evidence that one of ordinary skill in the art at the time to see more advantages the photographer can set a mode for prohibiting an erasing action of said eraser in advance so that allowing the photographer to protect some important images data from being erased by the erroneous operation. For that reason, it would have been obvious to one of ordinary skill in the art to modify the camera system of Ohsawa ('332) by providing a mode to allow the photographer to prohibit an erasing action of said eraser in advance as taught by Inoue ('449).

7. Claims 6-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa U.S. Patent 6,470,413 in view of Wong U.S. Patent 6,396,744.

Referring to claim 6, the Ogawa reference discloses in Figures 1 and 8, an electronic still camera for capturing an image, comprising: an imager (CCD unit 2, see Col. 4, lines 45-50) that converts said image including a subject to electronic signals, so as to generate an image data set; a controller (CPU 5, See Col. 4, lines 63-65) that controls at least said imager (CCD 2), so as to conduct controlling actions for an image-capturing operation (e.g., when the release switch on the control panel 12 is depressed by a user, the CPU 5 detects that depression and begins controlling photographic sequence for an image-capturing operation, See Col. 5, lines 14-16); and a memory (a Flash ROM 15, See Col. 5, lines 3-5) that includes at least a first storing region, which provides a program memory section for storing a processing program (a signal processing program obtained from the Flash ROM 15, and the processing program executed by CPU 5, see, Col. 5, lines 24-25) to conduct said controlling

Art Unit: 2615

actions for said image-capturing operation (e.g., noted that the image-capturing operation sequence including signal processing operation to complete processing image data captured by the imager CCD 2), and a second storing region, which provides an image memory section for storing said image data set as an image file (e.g., when the external storage medium 17 is not connected to the camera, the image data set is stored in the flash ROM 15, see Col. 5, lines 35-40. This can be considered as the Flash ROM 15 has two sections, first section is program memory section and second section is image data set memory section), and said controller (CPU 5) reads out said processing program to execute it (See col. 5, lines 24-30); wherein, the memory (Flash ROM 15) is rewritable memory (See Col. 7, lines 44-50). However, the Ogawa reference does not explicitly show when the memory (flash ROM 15) in a mid-course of a rewriting (erasing and writing data operation) operation of data stored therein, a readout operation for another one of them can be simultaneously performed.

The Wong reference teaches in Figure 1, a non-volatile memory such as a Flash memory comprising a plurality sector sections; when the selected and following sectors are in different arrays, reading, writing, and erasing can be performed in parallel (simultaneous) (See Col. 2, lines 61-67). The Wong reference is evidence that one of ordinary skill in the art at the time to see more advantages the Flash memory can perform rewriting and reading operation simultaneously so that allowing the controller to access data from memory more efficient without the need for any additional external components and maintaining accurate storage of data in the memory (See Col. 1, lines 6-8 and Col. 2, lines 6-13). For that reason, it would have been obvious to one of ordinary skill in the art to modify the camera system of Ogawa ('413) by providing a Flash memory to process a rewriting (erasing and writing data

operation) operation of data stored therein, a readout operation for another one of them can be simultaneously performed as taught by Wong ('744).

Referring to claim 7, the Ogawa and Wong references disclose all subject matter as discussed with respect to claim 6, and the Ogawa reference discloses wherein each of said first storing region and said second storing region is a large unit of a storing region (e.g., each of the module or used sections of a Flash ROM 15 is a large unit of a storing region as shown in Figure 8), which includes one or more small unit(s) of (a) rewritable storing section(s) (unit modules including a plurality of blocks in the memory) as shown in Figures 4-10 (See Col. 7, lines 40-50).

Referring to claim 8, the Ogawa and Wong references disclose all subject matter as discussed with respect to claim 6, and the Ogawa reference discloses wherein said memory (Flash ROM memory 15) is a non-volatile memory; and the Wong reference also states the Flash memory is a non-volatile memory (See Col. 2, lines 48-49).

Referring to claim 9, the Ogawa reference discloses in Figures 1 and 8-10, an electronic still camera, comprising: an imager (CCD unit 2, see Col. 4, lines 45-50) that converts an object image into electronic signals, so as to generate an image data set from said electronic signals; a controller (CPU 5, See Col. 4, lines 63-65) that controls at least said imager (CCD 2), so as to conduct controlling actions for an photographing operation (e.g., when the release switch on the control panel 12 is depressed by a user, the CPU 5 detects that depression and begins controlling photographic sequence for an photographing operation, See Col. 5, lines 14-16); and a memory (a Flash ROM 15, See Col. 5, lines 3-5) that includes at least a first storing region, which provides a program memory section for storing a processing program

(a signal processing program obtained from the Flash ROM 15, and the processing program executed by CPU 5, see, Col. 5, lines 24-25) to conduct said controlling actions for said photographing operation (e.g., noted that the photographing operation sequence including signal processing operation to complete processing image data captured by the imager CCD 2), and a second storing region, which provides a camera adjusting-data memory section for storing camera adjusting-data (camera firmware data) to compensate for a difference between cameras (e.g., one part of the Flash ROM is employed to store firmware for the digital camera, see Col. 7, lines 29-33. The firmware of the camera including types of CPU program and difference software of a camera for compensate for a difference between cameras, see Col. 9, lines 19-21 and lines 35-36. This can be considered as the Flash ROM 15 has two sections, first section is program memory section and second section is camera adjusting-data memory sections); and said controller (CPU 5) reads out said processing program to execute it (See Col. 5, lines 24-30); wherein, the memory (Flash ROM 15) is rewritable memory (See Col. 7, lines 44-50). However, the Ogawa reference does not explicitly show when the memory (Flash ROM 15) is in process of a rewriting (erasing and writing data operation) operation of data stored therein, a readout operation for another one of them can be simultaneously performed.

The Wong reference teaches in Figure 1, a non-volatile memory such as a Flash memory comprising a plurality sector sections; when the selected and following sectors are in different arrays, reading, writing, and erasing can be performed in parallel (simultaneous) (See Col. 2, lines 61-67). The Wong reference is evidence that one of ordinary skill in the art at the time to see more advantages the Flash memory can perform rewriting and reading

Art Unit: 2615

operation simultaneously so that allowing the controller to access data from memory more efficient without the need for any additional external components and maintaining accurate storage of data in the memory (See Col. 1, lines 6-8 and Col. 2, lines 6-13). For that reason, it would have been obvious to one of ordinary skill in the art to modify the camera system of Ogawa ('413) by providing a Flash memory to process a rewriting (erasing and writing data operation) operation of data stored therein, a readout operation for another one of them can be simultaneously performed as taught by Wong ('744).

Referring to claim 10, the Ogawa and Wong references disclose all subject matter as discussed with respect to claim 9, and the Ogawa reference discloses wherein each of said first storing region and said second storing region is a large unit of a storing region (e.g., each of the module or used sections of a Flash ROM 15 is a large unit of a storing region as shown in Figure 8), which includes one or more small unit(s) of (a) rewritable storing section(s) (unit modules including a plurality of blocks in the memory) as shown in Figures 4-10 (See Col. 7, lines 40-50).

Referring to claim 11, the Ogawa and Wong references disclose all subject matter as discussed with respect to claim 9, and the Ogawa reference discloses wherein said memory (Flash ROM memory 15) is a non-volatile memory; and the Wong reference also states the Flash memory is a non-volatile memory (See Col. 2, lines 48-49).

Referring to claim 12, the Ogawa reference discloses in Figures 1 and 8-10, an electronic still camera, comprising: an imager (CCD unit 2, see Col. 4, lines 45-50) that converts an object image to electronic signals, so as to generate an image data set from said electronic signals; and a memory (a Flash ROM 15, See Col. 5, lines 3-5) that includes at least a first

storing region and a second storing region, one of which is a camera adjusting-data (camera firmware data) memory section for storing camera adjusting-data to compensate for a difference between cameras (e.g., one part of the Flash ROM is employed to store firmware for the digital camera, see Col. 7, lines 29-33. The firmware of the camera including types of CPU program and difference software of a camera for compensate for a difference between cameras, see Col. 9, lines 19-21 and lines 35-36), and another of which is an image-data memory section for storing said image data set as an image file (e.g., when the external storage medium 17 is not connected to the camera, the image data set is stored in the flash ROM 15, see Col. 5, lines 35-40. This can be considered as the flash ROM 15 has two sections, first section is camera adjusting-data section and second section is image data set memory section); wherein, the memory (Flash ROM 15) has a plurality storing sections (unit modules) that are rewritable (See Col. 7, lines 44-50). However, the Ogawa reference does not explicitly show when the memory (Flash ROM 15) is in process of a rewriting (erasing and writing data operation) operation of data stored therein, a readout operation for another one of them can be simultaneously performed.

The Wong reference teaches in Figure 1, a non-volatile memory such as a Flash memory comprising a plurality sector sections; when the selected and following sectors are in different arrays, reading, writing, and erasing can be performed in parallel (simultaneous) (See Col. 2, lines 61-67). The Wong reference is evidence that one of ordinary skill in the art at the time to see more advantages the Flash memory can perform rewriting and reading operation simultaneously so that allowing the controller to access data from memory more efficient without the need for any additional external components and maintaining accurate

storage of data in the memory (See Col. 1, lines 6-8 and Col. 2, lines 6-13). For that reason, it would have been obvious to one of ordinary skill in the art to modify the camera system of Ogawa ('413) by providing a Flash memory to process a rewriting (erasing and writing data operation) operation of data stored therein, a readout operation for another one of them can be simultaneously performed as taught by Wong ('744).

Referring to claim 13, the Ogawa and Wong references disclose all subject matter as discussed with respect to claim 12, and the Ogawa reference discloses a controller (CPU 5, See Col. 4, lines 63-65) that controls at least said imager (CCD 2), so as to conduct controlling actions for an photographing operation (e.g., when the release switch on the control panel 12 is depressed by a user, the CPU 5 detects that depression and begins controlling photographic sequence for an photographing operation, See col. 5, lines 14-16); wherein said memory (Flash memory 15) includes a program memory section (a signal processing program obtained from the Flash ROM 15, and the processing program executed by CPU 5, see, Col. 5, lines 24-25) for storing a processing program to conduct said controlling actions for said photographing operation (e.g., noted that the photographing operation sequence including signal processing operation to complete processing image data captured by the imager CCD 2).

Referring to claim 14, the Ogawa and Wong references disclose all subject matter as discussed with respect to claim 12, and the Ogawa reference discloses wherein each of said first storing region and said second storing region is a large unit of a storing region (e.g., each of the module or used sections of a Flash ROM 15 is a large unit of a storing region as shown in Figure 8), which includes one or more small unit(s) of (a) rewritable storing

Art Unit: 2615

section(s) (unit modules including a plurality of blocks in the memory) as shown in Figures 4-10 (See Col. 7, lines 40-50).

Referring to claim 15, the Ogawa and Wong references disclose all subject matter as discussed with respect to claim 12, and the Ogawa reference discloses wherein said memory (Flash ROM memory 15) is a non-volatile memory; and the Wong reference also states the Flash memory is a non-volatile memory (See Col. 2, lines 48-49).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - a. Fellegara et al. U.S 5,845,166 discloses a hybrid camera includes imaging mode selector for selecting a film mode and a hybrid mode of operation.
 - b. Niikawa et al. U.S. 6,834,130 discloses an image retrieval system for retrieving a plurality of images recorded in a recording medium, records data concerning operations and processing form image files as history data.
 - c. Anderson et al. U.S. 6,657,667 discloses a memory has input buffer and frame buffer, and the memory can perform writing and reading operation simultaneously.
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lin Ye whose telephone number is (703) 305-3250. The examiner can normally be reached on Mon-Fri 8:00AM-5:00PM.

Art Unit: 2615

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Thai Tran can be reached on (703) 305-4725. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Lye', with a long horizontal flourish extending to the right.

Lin Ye
Examiner
Art Unit 2615

January 19, 2005